

What is claimed is:

1. A radar apparatus which radiates a transmit signal from a transmitter section, and which receives said transmit signal reflected from an object by

5 switching between a plurality of antennas, wherein

said plurality of antennas are divided into a plurality of groups, and at least one of the plurality of antennas contained in each of said groups is a common antenna, and wherein

10 said radar apparatus comprises: a selector switch section having a plurality of selector switches each for sequentially and selectively switching output terminals of said plurality of antennas and said common antenna contained in a corresponding one of said groups
15 for connection to an input terminal; a plurality of channels each having an A/D converter and a downconverting section for downconverting a received signal that has been input from each of said antennas to said input terminal via a corresponding one of said
20 plurality of selector switches; and a digital signal processing section for receiving an output from said A/D converter of each of said channels, and for applying prescribed processing to detect the distance to or the relative velocity of said object.

25 2. A radar apparatus as claimed in claim 1, wherein said common antenna is provided with a branching means for connecting the output of said antenna to each of said channels by switching therebetween.

30 3. A radar apparatus as claimed in claim 2, wherein said branching means is a selector switch.

4. A radar apparatus as claimed in claim 2, wherein said branching means is a hybrid circuit.